

DOCUMENT RESUME

ED 079 701

CS 000 654

TITLE A Plan to Prevent Reading Disabilities, K-6. Final Report.

INSTITUTION Port Angeles School District 21, Wash..

SPONS AGENCY Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.; Washington Office of the State Superintendent of Public Instruction, Olympia..

PUB DATE 16 Jun 72

NOTE 44p.

EDRS PRICE MF-\$0.65 HC-\$3.29

DESCRIPTORS Changing Attitudes; *Diagnostic Teaching; Elementary Education; *Inservice Teacher Education; Parent Teacher Cooperation; *Reading Diagnosis; *Reading Difficulty; Reading Tests; *Teacher Attitudes

ABSTRACT

The outcomes of an inservice program to effect a positive change in attitude of teachers toward the specific reading problems of individual children are described. It was hypothesized that an awareness of isolated information would help develop the professional sophistication commensurate with the expected quality of teaching which was to be accomplished by developing reliable screening procedures and diagnostic techniques and by establishing corrective procedures to meet the individual symptoms of reading disability. Stated behaviorally, objectives reading teachers would demonstrate included (1) favorable attitudes toward diagnostic teaching, (2) skills for screening symptoms of reading disabilities, and (3) selection of appropriate diagnostic procedures to correct identified symptoms of reading disability. Training consisted of 27 hours of released time which was reinforced by the Reading Team upon referral of students by the classroom teachers. The parents and community were also involved through participation in conferences. Though results of the program did not indicate that it attained its objectives as measured by the formal testing, there was little doubt that there had been an upgrading of the district reading program. Appended are sample case studies, a cognitive test for the educator's knowledge of reading, an objectives checklist, and references.

(HOD)

ED 079701

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

CS

FINAL REPORT

TITLE III 1971-72

A PLAN TO PREVENT READING DISABILITIES, K-6

Port Angeles School District No. 21

Port Angeles, Washington

June 16, 1972

459 000

Identification

School District No. 21
216 East Fourth
Port Angeles, Washington 98362

Project Number

05-021-69-430

Grant Number

92210271 - 32 Washington

Budget Period

Past -- June 26, 1971-June 26, 1972

Present - Final Report

Project Director

L. B. Kinney
216 East Fourth
Port Angeles, Washington 98362

THE LOCALE

Port Angeles is located in Clallam County on the Olympic Peninsula in the far Northwest corner of Washington State. The immediate land mass is dominated by the Olympic Mountains which are occupied by the Olympic National Park and the National and State forest lands. The economy of the area is very dependent on the forest products industries, with logging, lumbering, and pulp and paper manufacturing the major industries. Fishing comprises a lesser and declining industry, while the seasonal tourist business is growing.

Job opportunities have been somewhat limited. The lumber and pulp industries have increased production with a decline in a corresponding labor force. Plant modernization will probably continue. Many of these people have skills not needed in other areas. Seasonality of the logging industry and tourist trade compound the unemployment problem. However, this region provides some of the most outstanding outdoor resources in the United States.

The population density of Clallam County is slightly more than two persons per square mile is light compared to the Puget Sound Region of Washington State. Less than 31,300 people of the State's 3,107,000 population live in this county. Almost half, or over 16,000, of the county's population live in the Port Angeles area.

About 95 percent of the local school population are caucasian, four percent are Indian, and less than one percent are Negroes and Orientals.

General school population growth has been less than two percent the last ten years in this area. Since 1969 the decline in school population has been slightly more than two percent.

THE SCHOOL SYSTEM

The school system has seven elementary schools with a K-6 student population of 2,518. Individual elementary schools vary in size from 170 pupils to 500 pupils. The two junior high schools have student populations of 355 and 869 each. The one senior high school has 1,265 students. The total school district school population as of October 1, 1972 was 5,007. There has been a decrease in school enrollment beginning in 1969. The decrease continues in 1971 with a loss of approximately 500 students in three years.

The 1971 cost per pupil was \$727.51 (net cost per pupil enrolled, K-12, Washington State Form 196) in the Port Angeles Schools. The state has in recent years continued to reduce basic school support. The state has also applied Federal Forest fund monies and Federal Impact fund monies (874) to the state equalization formula. These were monies formerly available to this district. For example, between 1964-65 and 1968-69 school years the district lost \$481,812.52 of the Forest Fund and Federal Impact monies.

The problem of raising monies at the local level for school support is difficult too. Ten mills of the assessed evaluation of local property will bring \$60.06 (1967) per pupil in Port Angeles. The same ten mills on local property would bring \$117.40 per pupil in Seattle. Of eleven special property tax levies attempted in Port Angeles between 1954-1968, three passed. Since 1969 four levies have passed each year they were submitted. These tax levies constitute approximately twenty percent of the yearly operational budget.

NEEDS ASSESSMENT

Without considering Federal help, this school district became concerned with the reading program when, in 1967-68 and again 1968-69, standardized test results (Iowa Test of Basic Skills) indicated that Port Angeles elementary students were reading in the bottom quartile of the National and Far Western norms. Elementary teachers' opinions were collected in the fall of 1968 which suggested that over 30 percent of the students were then reading below grade level. Further, reading abilities of Port Angeles students were lagging behind learning abilities as indicated by the Lorge Thorndike Intelligence Tests. The dropout rate had doubled between the years 1964 and 1968 and it climbed to the ten percent level in 1969.

Although teachers and principals analyzed and identified many deficiencies in the elementary program, and despite the recent updating of the basal reading program, the improvement of reading instruction was considered crucial.

This school district is without libraries or remedial reading centers in the elementary schools.

HISTORICAL BACKGROUND

A year of planning with K-2 teachers provided the plan and objectives for the in-service that eventually followed. Teachers had expressed a need for in-service training, assistance in the classroom, equipment and materials to meet individual student's reading problems. The needs of students and teachers were approached in this manner. The school board approved the hiring of four trained teachers of reading. The four reading teachers would assist classroom teachers of K-6 to develop techniques for matching instructional materials and methods with individual student reading needs. However, the necessary in-service training for staff members could not be provided through local funds. Citizen groups and board members gave other funding higher priority or failed to believe in-service for teachers a local responsibility.

Title III (P.L. 89.10) made possible the in-service training of teachers K-6 through the school years 1969-72.

THE IN-SERVICE TRAINING

Nine days of released time for formal instruction in three hour blocks over a period of seven months was provided each teacher of K-6.

The instructor for the in-service was a staff member with a master's degree in education, with emphasis on reading, from the University of Missouri. Consultant help was provided by a staff member from the University of Missouri.

SCOPE OF THE PROGRAM

A major outcome of the in-service was to effect a positive change in attitude of teachers toward the specific reading problems of individual children. It was hypothesized that an awareness of isolated information would help develop the professional sophistication commensurate with the expected quality of teaching. This was to be accomplished by developing reliable screening procedures, diagnostic techniques and establishing corrective procedures to meet the individual symptoms of reading disability. (Note the syllabus, Appendix C)

After many work sessions with primary teachers, instruments were developed for the recording of educational information. Three kinds of educational information, standardized tests, informal inventory, and teacher observation related to the five causal areas of learning - physical, mental, emotional, environmental and educational, provided direction for instruction.

Stated behaviorally, the Major Objectives read:

1. Given the in-service training and services subordinate to and supportive of their roles of instruction, teachers will demonstrate favorable attitudes toward diagnostic teaching.
2. Given the in-service training and services subordinate to and supportive of their roles of instruction, teachers will demonstrate skills for screening symptoms of reading disabilities.
3. Given the in-service training and services subordinate to and supportive of their roles of instruction, teachers will select diagnostic procedures to correct identified symptoms of reading disabilities.

The major objectives were accomplished through the twenty-seven hours released time in-service training. This formal training was reinforced by the Reading Team upon referral of students by the classroom teachers. Referral to the Reading Team provides direct help for screening services, analysis of data, corrective procedures, materials and demonstrations.

PARENT - COMMUNITY INVOLVEMENT

Twenty-eight community target groups have been contacted each of the three years of this Title III project. Approximately forty percent of the groups sent representatives for a total of 123 individual target group contacts during the three year period.

Seven building meetings were held with parents of children who were to receive reading help. These were efforts to explain the plan to Prevent Reading Disabilities. Following the general explanation, one hundred and thirty-two individual parent conferences were held over the three year period to further solicit parent support and explain our efforts as it related to the individual. These individual conferences are continuing.

Numerous meetings were held with the Citizens' Steering Committee, an advisory group for the School Board. This group has given active support to the Reading Program through the last four successful operation levies.

Work sessions with the school board have numbered six. For the 1972-73 school year the board has approved funding to continue the in-service for those teachers new to the district.

Reading Team members have these three years given talks and demonstrations to twelve P.T.A.s, eight local civic groups and two local radio programs. The team has also demonstrated in two W.O.R.D. conferences and four I.R.A. meetings.

BUDGET

The total cost of the program was \$36,620 (three years). These funds were provided by the U.S. Office of Education, from Title III, ESEA funds. Of the total cost \$19,425 was spent for the hiring of substitute teachers, \$4,278 for contracted services, consultants, etc., \$3,439 for supplies and materials, \$3,010 for non-professional help, mostly secretarial time.

The travel for consultants and teachers to visit other school districts required \$1,136 over the three years. The remainder of the budget, approximately \$1,200, went to employee benefits as required by law.

EVALUATION

1. Given the in-service training, teachers will acquire favorable attitudes toward diagnostic teaching.
 - a. As indicated by in-service personnel's ability to score above the National Norm on the Minnesota Teacher Attitude Inventory.

MINNESOTA TEACHER ATTITUDE INVENTORY

	Mean	
	65	
	60	
Post Test	<u>55</u>	54.6 mean score
National	<u>50</u>	50.5 mean score
	45	
Pre Test	<u>40</u>	43.9 mean score

Norm used: Elementary teachers with four years of training in the system with twenty-one or more teachers.
Manual: Minnesota Teacher Attitude Inventory; the Psychological Corporation, 304 E. 45th St., New York, N.Y. (page 9)

Results: The Minnesota Teacher Attitude Inventory, Form A was administered to thirty-eight teachers of grades five and six in September of 1971. The test was given in March and the scores matched. The thirty-eight teachers' scores ranged from 0 to 82 (table I) on the pre-test with a mean score of 43.9 (table I)

In the post test thirty-five teachers' scores ranged from 0 to 100 with a mean score of 54.6.

The score did indicate some improvement in general attitude as a measure by this test. The post-test scores were above the national norm, a stated objective.

TABLE I

MINNESOTA TEACHER ATTITUDE INVENTORY

Differences in Pre-Post mean score in the Minnesota Teacher Attitude Inventory, Form A

*(Codes 23 and 24 not tested, 38 in-service personnel took the test)

Raw Scores

Pre 9/19/71

Post 3/21/72

Code	Pre	Post	Code	Pre	Post
1	40	46	20	21	38
2	64	76	21	22	53
3	45	45	22	64	77
4	8	19	25	81	94
5	52	68	26	73	89
6	50	62	27	46	36
7	20	20	28	61	74
8	12	8	29	58	64
9	31	44	30	43	67
10	68	71	31	0	19
11	20	8	32	53	67
12	0	2	33	20	39
13	51	67	34	14	25
14	73	88	35	71	100
15	64	75	36	60	67
16	82	84	37	27	33
17	70	80	38	20	26
18	50	66	39	55	55
19	63	78	*40	14	45

1. Given the in-service training, teachers will acquire favorable attitudes toward diagnostic teaching.

b. As indicated by their ability to classify from two case studies those screened symptoms of reading disabilities into five causal areas and make recommendations for their solution at the 90% level. Less than a third of the participants were able to accomplish this objective. (Appendix A)

Observation of table II would cause us to conclude that there was little correlation between the case studies and the Minnesota Inventory scores.

TABLE II

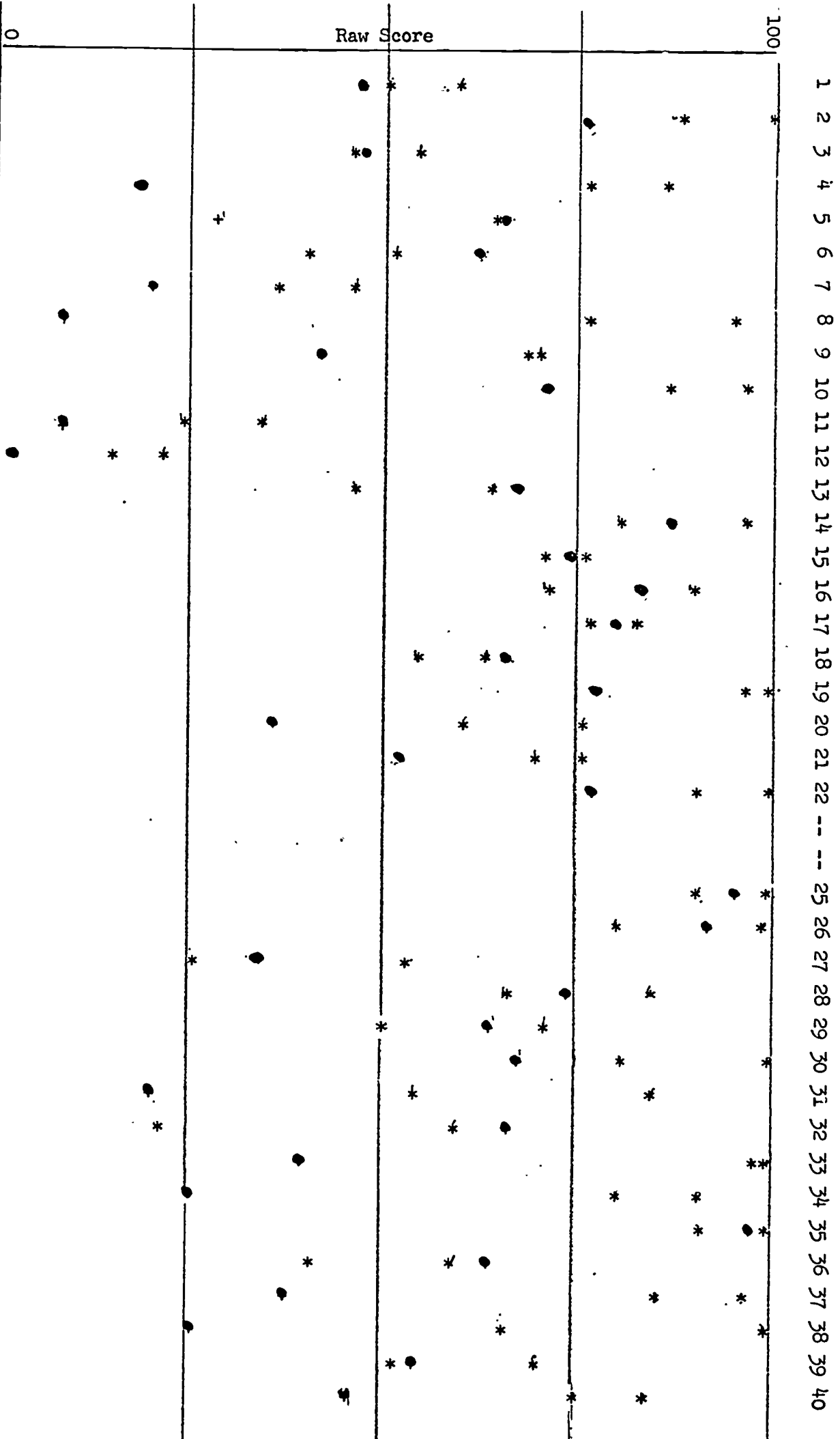
The comparison of two case studies and the Minnesota Attitude Inventory.

RAW SCORES

Code No.	Case Study I (Larry)	Case Study II (Andora)	Minnesota Inventory
1	50	60	46
2	90	100	76
3	45	55	45
4	80	75	19
5	30	65	68
6	40	50	62
7	45	35	20
8	95	75	8
9	70	70	44
10	85	95	71
11	35	25	8
12	15	20	2
13	45	65	67
14	95	80	88
15	70	75	75
16	70	85	84
17	75	80	80
18	55	60	66
19	100	100	78
20	75	60	38
21	75	70	53
22	100	90	77
25	100	90	94
26	80	100	89
27	25	55	36
28	65	85	74
29	50	70	64
30	100	80	67
31	55	85	19
32	20	60	67
33	100	100	39
34	30	90	25
35	100	90	100
36	40	60	67
37	85	95	33
38	65	90	26
39	55	70	55
40	75	85	45

THE COMPARISON OF TWO CASE STUDIES AND THE MINNESOTA ATTITUDE INVENTORY

PARTICIPANTS BY CODE



* Case studies
• Minnesota

EVALUATION

2. Given the in-service training, teachers will acquire favorable attitudes toward diagnostic teaching.

- a. As indicated by their ability to score at the 80% competency level on a district developed cognitive test. (Appendix B)

Results: It was assumed that favorable attitudes toward change would require review and reorganization of knowledges of reading instruction. The Educator's Knowledge of Reading (Appendix B) was designed to give an indication of the teachers' general knowledge in the area of reading instruction. This is a district made test. The test is valid by this definition: the test was constructed by five reading specialists and revised several times. The reliability test data follows table III.

Differences in the Pre-Post Mean Scores on the Educator's Knowledge of Reading (Cognitive and fifty items)

	Mean	
	40	
Post Test	<hr/> 38	38.2 mean score
	36	
	34	
	32	
Pre Test	<hr/> 30	31.3 mean score

The differential mean score of 6.9 may not be significant. Only 39 percent of the in-service personnel completed this post test at the 80% or above level. Eighty-four percent of the in-service personnel completed the post test at the 70% or above level. This was below our goal of 100 percent at the 80% level of competency. See table III.

TABLE III

EDUCATOR'S KNOWLEDGE OF READING COGNITIVE - FIFTY ITEMS

Pre 9/19/71

Post 3/21/72

Code No	Raw Score		Code No.	Raw Score	
	Pre	Post		Pre	Post
1	29	35	20	28	41
2	32	34	21	33	30
3	33	40	22	30	37
4	36	36	25	38	44
5	36	43	26	32	39
6	30	31	27	28	37
7	20	40	28	32	44
8	39	38	29	28	36
9	27	35	30	27	41
10	37	41	31	32	32
11	24	32	32	30	38
12	12	37	33	33	41
13	29	38	34	26	35
14	31	40	35	34	45
15	26	39	36	31	37
16	34	44	37	30	32
17	35	41	38	34	38
18	28	37	39	31	40
19	35	45	40	27	38

One of the necessities in using the teacher-made test to ascertain knowledge of reading is to establish a measure of reliability for the test. In order to control a number of variables as much as possible, parallel tests were given to a number of teachers in a school district removed from Port Angeles. The reliability coefficient establishes the correlation between the two parallel tests. The phi coefficient gives a numerical value, ranging from 0 to +1, for that relationship.

The basic computational formula for phi is

$$\phi = \frac{AD-BC}{\sqrt{(A+B)(C+D)(A+C)(B+D)}}$$

Test I

		Correct	Wrong
Test II	Correct	A 347	B 83
	Wrong	C 48	D 162

Table - Contingency table of parallel test scores from Educator's Knowledge of Reading.

$$\phi = \sqrt{\frac{56,214 - 3,184}{430 \times 210 \times 395 \times 295}}$$

$$\phi = \sqrt{\frac{53,030}{8,738,782,500}}$$

$$\phi = \frac{53,030}{93,480}$$

$$\phi = .56$$

$$\text{chi-square} = N \phi^2$$

$$\text{chi-square} = 640 \times .56^2$$

$$\text{chi-square} = 640 \times .3136$$

$$\text{chi-square} = 200.704$$

The number of degrees of freedom for this simple chi-square will always be 1. A chi-square value larger than 3.8, with one df, is significant at the .05 level. It is concluded, therefore, that correlation between Test I and Test II is significant.

Reliability test conducted by Vern Fankhauser, Intermediate District #114

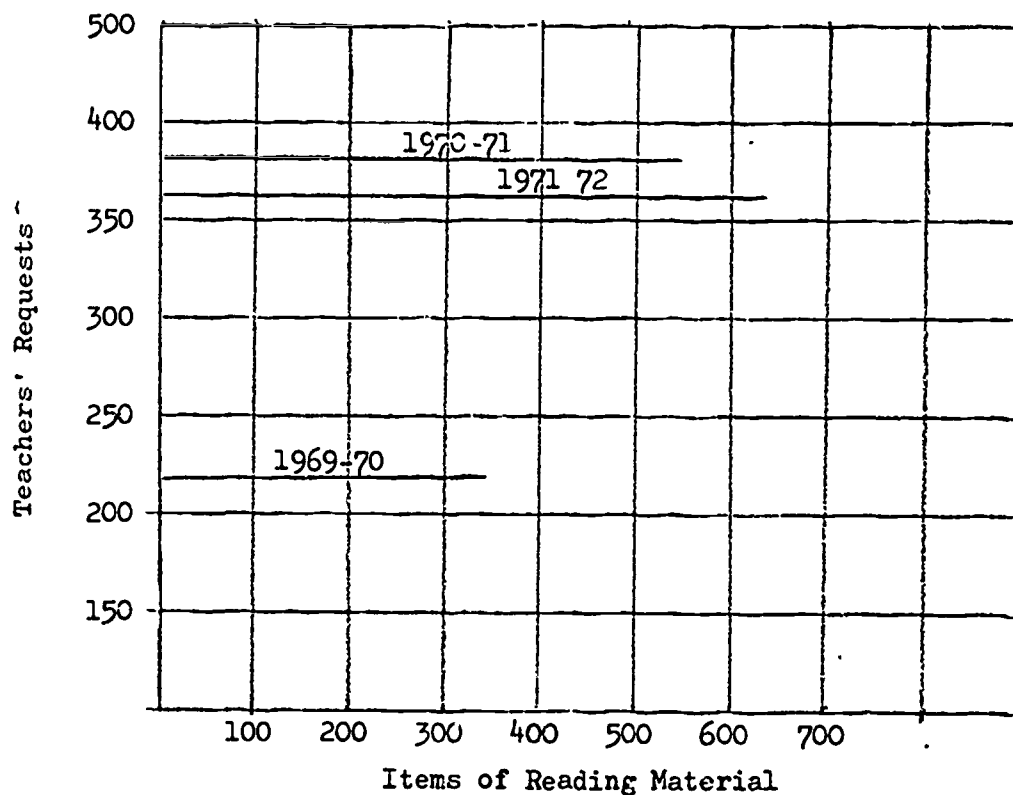
RESULTS OF TWO TESTING SESSIONS
USING EDUCATOR'S KNOWLEDGE OF READING
(Time Sample 30 Days)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1	*	+		+	+	+	+	*								*	+		*		+		+	*					*	+	+	*	
2	+		+		+	+	+		*								*						+	*		+				*	+	+	*
3		+			+				*													*	*	*		+	+			*		+	*
4		+	+		+	+	+										*						+			+	+					+	+
5		+	*			+	+		+			+					+				*	+	+			+	+	+	+	+	+	+	+
6		+		+	+	+	+		*							*						+	+	*						+	+	+	*
7	+	+	+	+	+		+						*	+	+	*	*							*				+	+	+		+	+
8		+			*	+	*		+	+	*	+					+					+						+	+	+	+	*	+
9	*	*	+		+	+	+				*					+	+				*	+			*				*	+	+	+	+
10			+		+	*	+		+	+						*			+	+		*	*	*				+	+	+	+	*	+
11		+	*			*	+									*				+		+	*	*				*	+	+	+	+	+
12	*		+	+	+		+									+					+	+						*		+	+	+	+
13	*	+			+		+								*									+				+	+	*		+	+
1st 4*	8	7	3	10	7	9	0	2	6	2	9	2	2	3	5	6	0	2	0	5	7	7	7	1	7	4	9	9	6	8	13	3	
2nd 1*	10	6	4	10	7	11	0	4	5	1	8	0	3	2	3	4	0	1	1	3	6	5	1	0	4	2	10	10	5	5	12	2	

	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
1			*+	*+		*+	+	+	*+		*	*+	*+		*		*	*26
2		*+	+		+	+		+	*+			*	+				+	+20
3		*+	*+	*+	*+			*										*15
4		*+	+						*+			*+						+17
5			*+	*												*+	*+	*18
6		*	*+	*	*						*	*+	*		*			+16
7			*+						*				*+				*	+14
8			*+	*+	*+			*					*					*16
9			*+	*+		*+		+	*		*				*+			+18
10				*+	*+	*+		+	*+			*+					+	+14
11					*+	*+			*	*+	*	*+						*24
12		*	*	+	*+	*+	*+	*+		*	*+	+	*	*		*	*	+21
13		+	*+	*+	*+			*				*	*		+			*16
1st 4*	0	5	9	8	7	6	1	3	7	3	5	7	7	1	4	2	5	*253
2nd 1+	0	4	10	7	7	7	2	5	4	2	1	5	4	0	3	1	3	+211

TEACHER REQUESTS FOR READING MATERIALS

From September to March
(Subjective Data)



These figures do not include the collections that are scheduled on an exchange basis or those new materials sent to teachers for evaluation. (School District No. 21 has one elementary library which serves seven elementary schools. The library is located in a rental facility in down town Port Angeles)

233 teacher requests for 371 items of reading materials were made in 1969-70, in 1970-71 there were 372 teacher requests initiated for 588 items of reading materials. During the same seven month period in 1971-72, 368 teacher requests were made for 602 items of reading materials. The district has averaged 98 elementary teachers each year for the three years.

EDUCATOR'S KNOWLEDGE OF READING

Three Year Summary 1969-72

Table

Teachers	Pre Test Mean	Post Test Mean	Differential Mean
Grades K-2	the test was being developed		
Grades 3-4	31.6	34.3	2.7
Grades 5-6	33.3	38.2	6.9

MINNESOTA TEACHER ATTITUDE INVENTORY, Form A

Three Year Summary 1969-72

Teachers	Pre Test Mean	Post Test Mean	Differential Mean	National Mean
Grades K-2	60.0	65.0	5.0	50.5
Grades 3-4	56.4	60.6	4.2	50.5
Grades 5-6	43.9	54.6	10.7	50.5

RECOMMENDATIONS

The results of the program do not indicate that it attained its objectives as measured by the formal testing.

However, that there has been an upgrading of the district reading program leaves little doubt.

The in-service will continue for those teachers new to this district in 1972-73 as recommended by the Citizens' Steering Committee and directed by the School Board.

The evaluations and observations of our practices have drawn attention to several concerns:

1. In-service would not have been effective without the direct follow-up and support of the Reading Team.
2. More in-service time probably should have been spent on the skills of basic reading instruction. We found our 27 hours of time not sufficient to cover the basic instructional skills and to provide those new skills associated with diagnostic and prescriptive teaching.
3. After developing rather sophisticated screening procedures to locate specific reading problems, we found that most commercial materials were not satisfactory. Therefore, we developed our own or altered considerably those found on the market. The amount of time it takes to develop the materials to meet specific student problems was far beyond our estimations.
4. We still believe teacher attitude to be the key to altering teaching practices. We are not satisfied that we found appropriate instruments to measure teacher attitude as it relates to reading instruction.

Read the case study to analyze possible symptoms of reading disability. Write the student's name on the Learning Ability Record in the space provided after "Name".

Scoring process:

1. Write 71-72 on the Learning Ability Record in the appropriate place to identify symptoms with causal areas.
2. On the Case Study Diagnosis sheet substantiate your recording or reason for not recording in each causal area.
3. Then make recommendations which will assist the student in reaching his potential.

Case Study Number 1

A PENJIX A

Student's Name Larry Sex Male
Age 12 Birthday Nov. 6, 1959 Grade 5

Larry's scores on the reading comprehension subtest of the C.T.B.S., September 1971 was 3.7 - 26%ile. He was absent for the vocabulary subtest and for the Short Form Test of Academic Aptitude. (have other scores)

Larry was given the Wechsler Intelligence Scale for Children April 15, 1971 when he was 11 years, five months. His scale profile showed:

Verbal				Performance			
Information	10	Similarities	10	P. C.	12	O. A.	10
Comprehension	10	Vocabulary	10	P. A.	9	Coding	8
Arithmetic	7	Digit Span	10	B. D.	10		

There was not a significant discrepancy between the verbal and performance subtests. His performance placed him in the 90-109 range, the average range in which 50% of the scores fall.

The Beltone audiometer screening indicated hearing to be normal and the orthorater eye screening revealed no vision problems.

Larry was referred to the Reading Team in 1971-72. Results of the screening done by a reading teacher:

Standardized Word List (Silvaroli) October 1971

	Sight	Analysis
Grade 1	80%	85%
Grade 2	70%	80%
Grade 3	25%	35%
Grade 4	40%	45%

Standard Reading Inventory (McCracken) October 1971

	Fluency	Comprehension	Rate
22	98%	100%	60 wpm
21	88%	70%	44 wpm
32	90%	70%	43 wpm

Betts Spelling Level II 65%

An auditory discrimination test showed 97-100% accuracy in discriminating initial, final and medial sounds.

Larry was given the Ginn Fifth Grade Readiness Test January 1972. His word meaning score placed him in "needs special help" category, about 4th grade level. His scores on both the word analysis and comprehension were in the average range. His subtest scores that indicated "needs special help" were: "Syllabication"; "Using Diacritical Marks"; and "Details" on the comprehension tests.

Larry was born in Port Angeles. He is the youngest child of four. His married sisters are 29, 30 and 32. His father is currently employed. His mother does not work. Larry did not attend kindergarten and he repeated grade one. Frequent and lengthy absences have characterized Larry's school career. The Public Health Nurse has made frequent phone calls and several home visits. She says that the mother was reluctant to have him leave her to go to school. She further states that the absences are not substantiated by evidences of fever or illness warranting non attendance. The mother has attended parent conferences but not consistently.

Larry's fourth and fifth grade teachers see Larry as a cooperative student. He is fairly quiet and is seemingly accepted by his peers.

Case Study Number 2

Student's Name Andora Sex Female
Age 11 Birthday Nov. 20, 1960 Grade 5

Standardized test results of the CTBS administered in September 1971 show Andora's scores to be:

Reading	Achieved	4.0	Expected	3.9	28%ile
Language	"	4.0	"	4.1	28%ile
Arithmetic	"	4.4	"	5.0	32%ile
Total	"	4.1	"	4.4	26%ile
Study Skills	"	5.4	"	4.8	57%ile

Andora was below average in performance on the Washington Motor Fitness Test given to her class in the Fall of 1971. Her score was 207 points with a class average of 237.3

An informal inventory of word perception skills shows areas of weakness to be with vowels and inflectional endings. Andora is working at instructional level, grade three. She is reading Open Highways, Book 5.

Teacher observation indicates Andora has difficulty with spelling and reversal of letters. Her writing is legible and since September her success with arithmetic has consistently improved. She does have reversal difficulties with two-digit numerals. (e.g., 17 for 71; 23 for 32)

Visual and hearing acuity measured normal as screened by the orthorater and Beltone audiometer.

Andora has good school attendance and a cooperative attitude toward school. She seems to have good peer relationships. She is shy, eager to do her work, and is cheerful. She is average in her participation with class discussion.

Andora was referred to the Reading Team in 1969-70 and again in 1971-72. When asked by the reading teacher what was hard about spelling, her response was, "The letters in the word I can't hear." (e.g., laugh, could)

Her mother is very anxious for her daughter to achieve. She attends parent conferences and does make frequent visits to the school.

APPENDIX B

EDUCATOR'S KNOWLEDGE OF READING

Cognitive - Fifty Items

Choose one answer for each question.

1. Reading instruction must focus on
 - ☐ a. selection of material.
 - ☐ b. instructional needs of students.
 - ☐ c. developing comprehension skills.
 - ☐ d. phoneme - grapheme relationships.

2. A cognitive determinant of reading success is
 - ☐ a. graded materials.
 - ☐ b. pupil interest.
 - ☐ c. pupil achievement.
 - ☐ d. student desire.

3. Word perception is
 - ☐ a. a combination of sequential steps.
 - ☐ b. the total reading approach.
 - ☐ c. not important to all students.
 - ☐ d. phonics.

4. Reading readiness
 - ☐ a. is reserved for the period of beginning reading.
 - ☐ b. applies to all levels of reading development.
 - ☐ c. is stressed mostly in kindergarten.
 - ☐ d. is a life-long process.

5. An affective criterion for the acquisition of reading skills is
 - ☐ a. to help the student develop and expand a sight vocabulary.
 - ☐ b. to help the student learn to associate visual symbols with speech sounds.
 - ☐ c. to help the student develop the ability to enjoy reading.
 - ☐ d. to help the student understand that the printed word symbols represent speech and that reading has meaning.

6. The ideal time for reading each day is
- ☐ a. 9 to 10 when the student is fresh.
- ☐ b. 12:30 to 1:30 after the student has had time to socialize.
- ☐ c. no specific time of day.
- ☐ d. when the teacher is ready.
7. During the early primary grades sex differences in reading interests are likely to be
- ☐ a. not very marked.
- ☐ b. very marked.
- ☐ c. unimportant.
- ☐ d. significantly different for boys than girls.
8. The best method to encourage a reluctant reader to realize reading can be fun is to
- ☐ a. require him to read a book a day.
- ☐ b. share literature with him by reading it aloud.
- ☐ c. require him to write book reports on each book read.
- ☐ d. choose his books for him.
9. The term diagnosis is used when
- ☐ a. a disability is suspected.
- ☐ b. a disability is analyzed and interpreted.
- ☐ c. a disability is brought to attention by parent or former teacher.
- ☐ d. a standardized test reveals a weakness in several skills.
10. A quick class survey to determine reading ability is
- ☐ a. to administer a standardized test.
- ☐ b. to have each student read a story silently and answer a set of questions on that story.
- ☐ c. to study the cumulative record card.
- ☐ d. to have each student read 2 or 3 sentences orally.
11. Screening the student for reading and arithmetic skill mastery should be done
- ☐ a. by standardized test.
- ☐ b. by teacher made test.
- ☐ c. by teacher observation.
- ☐ d. by all of these.

12. In evaluating a student's ability to read, the important thing is to
- ☐ a. listen to the student read.
 - ☐ b. rely on the student's ability to answer questions.
 - ☐ c. obtain some usable evidence in which each important objective is being reached.
 - ☐ d. use informal reading tests to obtain rate and accuracy of what is being read.
13. The diagnosis of reading problems is a prime responsibility of the
- ☐ a. principal.
 - ☐ b. classroom teacher.
 - ☐ c. reading teacher.
 - ☐ d. psychologist.
14. Informal reading tests should not be given to
- ☐ a. measure accomplishment of specific skills.
 - ☐ b. create goals for the student.
 - ☐ c. find the difference between oral and silent reading rates.
 - ☐ d. measure a student's capacity to learn.
15. Students develop reading disabilities because
- ☐ a. someone ignored the symptoms of reading disability.
 - ☐ b. the symptoms of disability were misinterpreted.
 - ☐ c. the student's achievement does not parallel the materials used.
 - ☐ d. all of these.
16. A method to alleviate subvocalization is to
- ☐ a. emphasize sight vocabulary.
 - ☐ b. practice phrase reading.
 - ☐ c. emphasize letter sounds.
 - ☐ d. give instruction in the use of context clues.
17. Harris suggests directional confusion is evidenced by
- ☐ a. reversals in reading.
 - ☐ b. stuttering.
 - ☐ c. assorted nervous habits.
 - ☐ d. all of these.

18. A student who reverses letters and/or words is considered to have a serious problem if this tendency persists in
- ☐ a. preschool.
 - ☐ b. kindergarten.
 - ☐ c. first grade.
 - ☐ d. third grade.
19. A basic principle associated with learning suggested by these words; kinesthetic, visual, auditory, tactile is
- ☐ a. multisensory.
 - ☐ b. sight vocabulary.
 - ☐ c. phonic analysis.
 - ☐ d. diagnosis.
20. One of the following is not an indicator of reading readiness
- ☐ a. auditory discrimination
 - ☐ b. visual discrimination
 - ☐ c. left-right orientation
 - ☐ d. chronological age 6.6
21. The only time a student should be asked to read aloud without advance preparation is
- ☐ a. for diagnostic purposes.
 - ☐ b. in small reading groups.
 - ☐ c. in social studies or science texts.
 - ☐ d. during round-robin reading.
22. The level of material a student can read with 5% errors and at least 75% comprehension is his
- ☐ a. cognitive reading level.
 - ☐ b. frustration reading level.
 - ☐ c. instructional reading level.
 - ☐ d. independent reading level.
23. Educational measurement can measure
- ☐ a. innate intelligence.
 - ☐ b. functional ability.
 - ☐ c. motivation.
 - ☐ d. learning processes.

24. Reading tests do not predict individual variations in

- ☐ a. the learning process.
- ☐ b. the number of reading difficulties.
- ☐ c. the levels of reading efficiency.
- ☐ d. all of these.

25. The aim of diagnosing symptoms of disability is to

- ☐ a. attempt to fix the blame.
- ☐ b. discover the environmental conditions which may require correction.
- ☐ c. seek a single causal factor.
- ☐ d. provide correction in relation to causal areas.

26. Physical impairment identified by screening should be referred by the classroom teacher to

- ☐ a. the principal for referral.
- ☐ b. the parent for referral.
- ☐ c. the Public Health Nurse.
- ☐ d. each of these for counsel.

27. Research findings in comprehension support the view that reading comprehension

- ☐ a. becomes less effective with increased age.
- ☐ b. surpasses listening comprehension with good readers.
- ☐ c. does not surpass listening comprehension with good readers.
- ☐ d. increases with those who watch television.

28. The significant finding of Sartain's study on the Individualized Reading approach is:

- ☐ a. it is the best way to teach reading.
- ☐ b. it is not a better approach than the basal approach.
- ☐ c. it provides for consistent pupil-teacher conferences.
- ☐ d. it exposes a student to a greater number of books.

29. Gates' classic study of the 30's found the single most important criterion for the successful teaching of reading is

- ☐ a. the teacher.
- ☐ b. the methods.
- ☐ c. the student's mental age.
- ☐ d. the materials.

30. Betts did not suggest one of these levels of reading competency
- ☐ a. independent level at which a student reads easily and fluently without assistance
 - ☐ b. an instructional level at which a student can do satisfactory reading providing he receives help from the teacher
 - ☐ c. a floating level at which the student depends on past knowledge
 - ☐ d. a frustration level at which the student's reading skills break down
31. One of the following is a more valid prediction of first grade reading success.
- ☐ a. a standardized readiness test.
 - ☐ b. teacher judgment.
 - ☐ c. an assessment of physical maturity.
 - ☐ d. hyperactivity.
32. The reading expectancy of a student may be estimated by
- ☐ a. teacher judgment.
 - ☐ b. a measure of intelligence.
 - ☐ c. a formula using a measure of achievement of intelligence.
 - ☐ d. a formula using a measure of intelligence and years in school.
33. Of the four dimensions of reading; word recognition, comprehension critical reading, and integration,
- ☐ a. word recognition is the most important.
 - ☐ b. each dimension is developed singularly.
 - ☐ c. each dimension is developed simultaneously.
 - ☐ d. the appreciation of literature is developed as an independent reader.
34. When a student is having difficulty reading content material, the teacher should
- ☐ a. have him take it home and read it to his parents.
 - ☐ b. have him stay after school and finish his assignment.
 - ☐ c. have part of the material read to him.
 - ☐ d. have him read it orally to the teacher.
35. Development of reading and listening comprehension
- ☐ a. are singular processes through the grades.
 - ☐ b. requires greater stress on listening in the beginning stages of reading.
 - ☐ c. will never be equivalent.
 - ☐ d. should be equally emphasized from the beginning.

36. A specific reading ability to be developed in the content area is:
- ☐ a. concept formation
 - ☐ b. word perception
 - ☐ c. vocabulary
 - ☐ d. organization
37. The abstraction of letters, letters combined into words, and words combined into reading can be accomplished only
- ☐ a. with thorough letter knowledge.
 - ☐ b. through application of phonie skills.
 - ☐ c. by an experiential background.
 - ☐ d. by word perception
38. When reading a story, a student's first approach to decoding an unknown word should be to use
- ☐ a. context clues.
 - ☐ b. phonics.
 - ☐ c. syllabication.
 - ☐ d. picture clues.
39. Phonics should be taught by
- ☐ a. deductive reasoning.
 - ☐ b. divergent thinking.
 - ☐ c. critical thinking.
 - ☐ d. inductive reasoning.
40. Words immediately recognized without mental spelling or analysis are
- ☐ a. phonic analysis words.
 - ☐ b. Dolch words.
 - ☐ c. sight words.
 - ☐ d. homonyms.
41. Those words which are decoded through phonic or structural approaches come under the general heading of
- ☐ a. antonyms.
 - ☐ b. phonic generalizations.
 - ☐ c. word analysis.
 - ☐ d. sight words.

42. What is the difference between a consonant and a vowel?

- ☐ a. Consonants always contain fricatives while vowels have none.
- ☐ b. A consonant always has a constant sound while a vowel has a variety of sounds.
- ☐ c. A consonant is usually uttered by, or accompanied with, a hissing sound.
- ☐ d. A consonant is characterized by closure at one or more points in the breath channel while the vowel is an open throat sound.

43. What do the following consonants have in common: l, r, w?

- ☐ a. Quite often they are silent letters.
- ☐ b. They control the vowel that precedes them.
- ☐ c. They control the vowel that follows them.
- ☐ d. They are all in the first half of the alphabet.

44. A schwa is

- ☐ a. an unaccented syllable.
- ☐ b. a vowel followed by a digraph.
- ☐ c. a vowel diphthong.
- ☐ d. a short vowel sound in an unaccented syllable (uh).

45. What do these letter combinations have in common: -tch, -dge, -bt, wr-, kn-, -ght?

- ☐ a. They change each other's sound.
- ☐ b. They are consonant digraphs.
- ☐ c. They are consonant blends.
- ☐ d. They have silent letters.

46. What do s and th have in common?

- ☐ a. Hard to say when a tooth is missing
- ☐ b. Voiced and unvoiced sounds
- ☐ c. They are sounds in the low frequency range

47. In a phonic context, what do c and g have in common?

- ☐ a. They both have long and short sounds.
- ☐ b. They both have hard and soft sounds.
- ☐ c. They are always preceded by vowels.

48. One word has the schwa sound of the vowel in the unstressed syllable.

- ☐ a. children
- ☐ b. barter
- ☐ c. pepper
- ☐ d. lazy

49. One of the following is divided according to a basic principle of syllabication.

- ☐ a. prob'le
- ☐ b. res'son
- ☐ c. welc'hen
- ☐ d. rat'und

50. One of the words below is spelled according to the principle for adding inflectional endings.

- ☐ a. laveing
- ☐ b. watting
- ☐ c. maxs
- ☐ d. reged

PORT ANGELES SCHOOL DISTRICT NO. 21
Port Angeles, Washington

SYLLABUS: Diagnostic Procedures to Prevent Reading Disabilities - 1971-72

PURPOSE FOR IN-SERVICE: To help each other help students to better advantage, especially with reading.

"Whenever I have confronted that which is unfamiliar to me, I constantly sought neither to praise nor to condemn but only to understand." Spinoza

TEACHERS: Grades 5 and 6, New K-4; Principals

OBJECTIVES CHECKLIST

1. Teachers will be able to analyze educational information for corrective procedures. For example:

_____ Teachers can interpret standardized information when presented as percentile, stanine and/or quartile data.

_____ Teachers can administer and interpret results of an informal inventory.

_____ Teachers can observe a student and record objective data.

Teachers can relate analyzed educational information into five causal areas for the purpose of consultation with persons of multi-disciplines. For example:

_____ PHYSICAL - Visual, eye care practitioner; Auditory, audiologist; Speech, communication disorders specialist; Motor Coordination, P.E. teacher; General Health, public health nurse.

_____ MENTAL - psychologist

_____ EMOTIONAL - counselor, psychologist, parent

_____ ENVIRONMENTAL - parent, social welfare agency, Health Department

_____ EDUCATIONAL - colleagues, Reading Team, principal, parent

2. Teachers will be able to use alternate methods of reading appropriate to student needs. For example:

_____ Teachers can develop sequential activities as identified with the basal method.

_____ Teachers can use experience stories to help students develop vocabulary.

_____ Teachers can use the student-teacher conference for specific learning information.

_____ Teachers can use the student's oral reading to evaluate expression of phrasing and fluency.

3. Teachers will be able to differentiate instruction to meet student needs.
For example:

- _____ Teachers can provide activities for sequential skill development.
- _____ Teachers can use skill groups for corrective measures.
- _____ Teachers can use workbooks, skill packets, manipulative tools to adapt a program to student needs.
- _____ Teachers will seek help from the principal, parent, and school agencies, in pursuit of fulfillment of student needs.

4. Teachers will be able to employ a variety of techniques to meet student needs. For example:

- _____ Teachers can effectively use grouping within the class.
- _____ Teachers can stimulate student performance with in-class or cross-grade tutoring.
- _____ Teachers can develop student initiative with contract arrangements for assignment completion.
- _____ Teachers can individualize instruction to meet a specific student's needs.

5. Teachers will be able to help students:

- _____ Evaluate ideas through interaction with peers in small group discussion, committee work, or special project.
- _____ Draw inferences by wide exposure to materials; film, pictures, books, writing, listening to tapes.
- _____ See relationships in experiences, ideas, and expressions of language.

6. (Evaluation) Teachers can evaluate and re-evaluate student progress through the use of diagnostic procedures. For example:

- _____ Teachers can use three kinds of educational information: standardized data, informal inventory, and teacher observation, to assess a student's learning needs.
- _____ Teachers can relate analyzed educational information into five causal areas to use a multi-disciplinary approach for correction.
- _____ Teachers will consult personnel of other disciplines for specific student needs and communicate with parents and principal.

SESSION ONE

OBJECTIVE: TEACHERS WILL DEMONSTRATE CONFIDENCE WITH AND KNOWLEDGE OF READING THROUGH RESPONSE TO TEST ITEMS.

I. PRE-ASSESSMENT

A. AFFECTIVE DOMAIN

1. Educator's Attitudinal Scale

B. COGNITIVE DOMAIN

1. Educator's Knowledge of Reading
2. Case studies
 - a. Standardized data, informal inventory, teacher observation (RT-F2)
 - b. Learning Ability Record (RT-F10)
 - c. Case study diagnosis

OBJECTIVE: TEACHERS WILL DEMONSTRATE CONFIDENCE WITH AND KNOWLEDGE OF READING THROUGH GROUP INTERACTION IN SHARING EXPERIENCES, ABILITIES, AND TEACHING STRENGTHS.

II. FORECASTING

A. OBJECTIVES CHECKLIST

1. Identify objectives met
2. Discuss objectives to be met
3. Examine syllabus

B. GROUP INTERACTION TO DIALOGUE

1. Experiences
2. Abilities
3. Teaching strengths

C. SESSION EVALUATION (clarity, effectiveness, utility)

1. Verbal reaction
2. Written reaction

SESSION TWO

OBJECTIVE: TEACHERS WILL IDENTIFY DIAGNOSTIC TEACHING AS A PROCESS OF INFORMATION ANALYSIS NECESSARY TO MEET STUDENTS' LEARNING NEEDS.

III. DIAGNOSTIC TEACHING PROCESS

A. EDUCATION INFORMATION (F2)

1. Standardized data
 - a. Percentile
 - b. Stanine
 - c. Quartile
2. Informal inventory
3. Teacher observation

B. CAUSAL AREAS (F10)

1. Physical (orthorater - audiometer)
2. Mental
3. Emotional
4. Environmental
5. Educational

C. SESSION EVALUATION (clarity, effectiveness, utility)

1. Verbal reaction
2. Written reaction

OBJECTIVE: TEACHERS WILL DISCUSS STRENGTHS AND WEAKNESSES OF FOUR METHODS OF READING INSTRUCTION.

IV. METHODS OF READING

A. BASAL

1. Sequential development
2. Workbook

B. INDIVIDUALIZED

1. Student-teacher conference
2. Self-seeking, self-selecting, self-pacing

C. LANGUAGE EXPERIENCE

1. Student vocabulary
2. Chart story

D. LINGUISTIC

1. Phonic approach
2. Oral reading with expression for meaning

E. SESSION EVALUATION (clarity, effectiveness, utility)

1. Verbal reaction
2. Written reaction

SESSION THREE

OBJECTIVE: TEACHERS WILL IDENTIFY CHARACTERISTICS OF FOUR TYPES OF READING INSTRUCTION.

V. DIFFERENTIATING INSTRUCTION

A. DEVELOPMENTAL

1. Sequential skills development
2. Basal oriented

B. CORRECTIVE

1. Identify skill needs
2. Group for correction

C. ADAPTIVE

1. Analysis of needs
2. Prepare materials for specific needs

D. REMEDIAL

1. Outside class time
2. Special help

E. SESSION EVALUATION (clarity, effectiveness, utility)

1. Verbal reaction
2. Written reaction

OBJECTIVE: TEACHERS WILL DISCUSS AND ANALYZE INFORMAL INVENTORY RESULTS THROUGH PRACTICE WITH A PARTNER.

VI. DIAGNOSTIC TEACHING: ANALYSIS

A. INFORMAL INVENTORY - WORD PERCEPTION SKILLS

1. Heilman - Phonics in Proper Perspective
2. Diagnostic skill tests.
 - a. DSK 4 with partner
 - b. Doren

B. INFORMAL INVENTORY - COMPREHENSION SKILLS

1. Ginn IRI
2. Nila Banton Smith
3. Barrett's Taxonomy (Anaheim Report)

C. SESSION EVALUATION (clarity, effectiveness, utility)

1. Verbal reaction
2. Written reaction

SESSION FOUR

OBJECTIVE: TEACHERS WILL DO ANALYSIS FOR CORRECTION ON INFORMAL INVENTORY INFORMATION DERIVED FROM STUDENT/S DURING CLASS TIME.

VII. DIAGNOSTIC TEACHING: INTERPRETATION

A. ANALYSIS FOR CORRECTION

1. DSK 1 through 4 with student
2. Oral/silent reading inventory with student

B. CORRECTIVE PROCEDURE

1. Skills index
2. Skills packet
3. Materials

C. SESSION EVALUATION (clarity, effectiveness, utility)

1. Verbal reaction
2. Written reaction

S E S S I O N F I V E

OBJECTIVE: TEACHERS WILL IDENTIFY A VARIETY OF TECHNIQUES FOR DIFFERENTIATING INSTRUCTION AND PACING THE PROGRAM TO MEET STUDENT NEEDS.

VII. ORGANIZING FOR INSTRUCTION

A. TECHNIQUES

1. Grouping
2. Individualizing
3. Contracts
4. Tutorial

B. PACING THE PROGRAM

1. Materials for pacing the student
 - a. Basal
 - b. Transitional
 - c. Supplemental
 - d. Adaptive (teacher made)
2. Methods for pacing the student
 - a. Self motivated (specific)
 - b. Group motivated (global)

C. SESSION EVALUATION (clarity, effectiveness, utility)

1. Verbal reaction
2. Written reaction

OBJECTIVE: TEACHERS WILL DISCUSS AND IDENTIFY SYMPTOMS OF DISABILITY IN CAUSAL AREAS THAT REQUIRE ASSISTANCE FROM OTHER DISCIPLINES.

IX. MULTI-DISCIPLINARY AWARENESS

A. VISION

1. Visual acuity
2. Visual discrimination
3. Visual defects

P. ADDITION

1. Auditory acuity
2. Auditory discrimination
3. Auditory defects

C. SPEECH (Communication Disorders)

1. Articulation
2. Therapy

D. NEUROLOGICAL DYSFUNCTION

1. Definition
2. Categories of dysfunction
3. Symptoms of behaviors of neurological dysfunction

E. SESSION EVALUATION (clarity, effectiveness, utility)

1. Verbal reaction
2. Written reaction

SESSION SIX

OBJECTIVE: TEACHERS WILL WRITE ENTRY/EXIT LEVEL PERFORMANCE CRITERIA FOR STUDENTS OF GRADES FIVE AND SIX.

X. PERFORMANCE CRITERIA

A. ENTRY LEVEL

1. Demonstrate
2. Observe
3. Measure

B. CHECKPOINTS

1. Begin correction
2. Criterion met

C. EXIT LEVEL

1. Demonstrate
2. Observe
3. Measure

D. SESSION EVALUATION (clarity, effectiveness, utility)

1. Verbal reaction
2. Written reaction

SESSION SEVEN

OBJECTIVE: TEACHERS WILL DISCUSS AND SHARE IDEAS OF THE BASIC SKILLS FOR CONTENT READING.

XI. READING IN THE CONTENT AREAS

A. BASIC SKILLS FOR CONTENT READING

1. Previewing
2. Skimming and scanning
3. Reading graphic materials
4. Organizing and reporting

B. READING IN SCIENCE AND SOCIAL SCIENCE

1. Vocabulary meaning
2. Concept development

C. READING IN MATH

1. Vocabulary meaning
2. Concept development

D. READING IN LITERATURE

1. Vocabulary enrichment
2. interpretation, inference

E. SESSION EVALUATION (clarity, effectiveness, utility)

1. Verbal reaction
2. Written reaction

SESSION EIGHT

OBJECTIVE: TEACHERS WILL IDENTIFY APPROACHES TO READING IN THE CONTENT AREAS THAT ENABLE STUDENTS TO EVALUATE IDEAS, SEE RELATIONSHIPS, AND DRAW INFERENCES.

VII. APPROACHES TO READING IN THE CONTENT AREAS

- A. EVALUATING IDEAS
- B. SEEING RELATIONSHIPS
- C. DRAWING INFERENCES
- D. SESSION EVALUATION (clarity, effectiveness, utility)
 - 1. Verbal reaction
 - 2. Written reaction

SESSION NINE

OBJECTIVE: TEACHERS WILL OBJECTIVELY EVALUATE THE IN-SERVICE SESSIONS BY WRITTEN STATEMENT AND RESPONSE TO ITEMS ON TWO KINDS OF TESTS; COGNITIVE AND AFFECTIVE.

IX. POST-ASSESSMENT

- A. IN-SERVICE EVALUATION
 - 1. Objectives Checklist
 - 2. Written reaction
- B. AFFECTIVE DOMAIN
 - 1. Minnesota Attitudinal
 - 2. Educator's Attitudinal Scale
- C. COGNITIVE DOMAIN
 - 1. Educator's Knowledge of Reading
 - 2. Case Studies
 - a. Standardized data, informal inventory, teacher observation (RT-F2)
 - b. Learning Ability Record (RT-F10)
 - c. Case Study Diagnosis

Syllabus: Diagnostic Procedures to Prevent Reading Disability

REFERENCES

- Anaheim Report, I.R.A. Convention, May 5-9, 1970 (handout)
- Artley, A. S., Phonics (handout)
- Bloom, Benjamin, "Critical and Creative Thinking" (handout)
- Bond, Guy L. and Miles A. Tinker, Reading Difficulties. New York: Appleton-Century-Crofts, Inc., 1967.
- Dechant, Emerald, Diagnosis and Remediation of Reading Disability. New York: Park Publishing Co., Inc., 1968.
- de Hirsch, Katrina, Predicting Reading Failure: A Preliminary Study. Harper Row, 1966.
- Durr, William K., Editor, Reading Instruction. Boston: Houghton Mifflin Co., 1967.
- Edwards, Allen J. and Dale P. Scannell, Educational Psychology. Scranton, Pennsylvania: International Textbook., 1968.
- Gunderson, Doris V., "Reading Problems: A Glossary of Terminology", Reading Research Quarterly, Summer 1969.
- Harris, Albert J., How to Increase Reading Ability, Fourth Edition. New York: David McKay Co., Inc., 1961.
- Heilman, Arthur, Phonics in Proper Perspective, Second Edition. Columbus, Ohio: Charles E. Merrill Publishing Co., 1968.
- Heilman, Arthur, Teaching Reading, Second Edition. Columbus, Ohio: Charles E. Merrill Publishing Co., 1967.
- McCarthy, James and Joan McCarthy, Learning Disabilities, Allyn and Bacon, 1969.
- Mager, Robert F., Preparing Instructional Objectives, Palo Alto, California: Fearon Publishers, 1962.
- Meacham, Merle, Changing Classroom Behavior: A Manual for Precision Teaching. International Testbook Co., 1969.
- Richette, Lisa Aversa, The Throwaway Children, Dell Publishing Co., 750 Third Avenue, New York, N.Y., 10017, 1969.
- Smith, Henry P. and Emerald V. Dechant, Psychology in Teaching Reading. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1961.
- Spache, George, Reading Disability and Perception, Volume 13, Part 3. Proceedings of the Thirteenth Annual Convention, IRA, 1969.
- Spache, George and Evelyn Spache, Reading in the Elementary School. Allyn & Bacon, 1969.

Syllabus: Diagnostic Procedures to Prevent Reading Disability

REFERENCES (cont.)

- Strang, McCullough, Traxler, The Improvement of Reading, Fourth Edition.
New York: M.Graw-Hill, 1967.
- Strang, Ruth, Diagnostic Teaching of Reading. New York: McGraw-Hill Book
Company, 1964.
- Tucker, M. and Constance McCullough, Teaching Elementary Reading. New York:
Appleton-Century-Crofts, Inc., 1962.
- Wechsler Intelligence Scale for Children. The Psychological Corporation,
New York.
- Zintz, Miles V., Corrective Reading. Dubuque, Iowa: William C. Brown Co.,
Inc. 1966.
- Zintz, Miles V., The Reading Process. Dubuque, Iowa: William C. Brown Co.,
Inc. 1970.